Title (en)

MULTIBAND ANTENNA BOOSTER ARCHITECTURE WITH A SINGLE SWITCH

Title (de)

MEHRBAND-ANTENNENVERSTÄRKERSTRUKTUR MIT EINEM EINZIGEN SCHALTER

Title (fr)

ARCHITECTURE D'AMPLIFICATEUR D'ANTENNE MULTIBANDE COMPORTANT UN SEUL COMMUTATEUR

Publication

EP 4092915 A1 20221123 (EN)

Application

EP 22174591 A 20220520

Priority

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- EP 21217878 A 20211227

Abstract (en)

A wireless device related to the present invention operates in more than one frequency bands and/or in more than one frequency regions and comprises a radiating system that includes an RF transceiver, at least a booster element or radiation booster or a modular multi-stage element; a ground plane layer eventually etched on a PCB, at least one external port connected to the RF transceiver, and a multiband and/or multi-region radiofrequency system that comprises a switch. Said radiating system also comprises a feeding architecture that connects the at least one antenna element or the at least one booster element to the radiofrequency system, said feeding architecture comprising a feeding line connected to a booster or antenna element and at least two feeding line extensions that are connected to a switch of the radiofrequency system and to the feeding line. A multi-region radiofrequency system related to this invention comprises a switch and at least two matching networks selectable through said switch, the at least two matching networks including two stages: a pre-matching stage and a common matching stage. In some embodiments, an isolating element is included and connected to the feeding line extensions comprised in the feeding architecture of the radiating system and to the feeding line.

IPC 8 full level

H04B 1/38 (2015.01); **H01Q 5/335** (2015.01); **H04B 1/40** (2015.01); **H04B 7/08** (2006.01)

CPC (source: EP US)

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